

What is claimed is:

1. A method of manufacturing a pneumatic tire, characterized in that when an end portion of a carcass ply is wound around a ring-shaped bead core and a stiffener is arranged on an outer peripheral side of a turnup portion of the carcass ply to shape a green tire, a carcass material is previously folded at both axially end portions in a direction opposite to each other and shaped into a cylinder to form a carcass band, and a pair of bead cores each attached with a stiffener are set to insides of both resulting hook-shaped wrap portions of the carcass band at a fall-down posture of the stiffener, and thereafter the stiffener of the fall-down posture is stood up on an outer peripheral side of the wrap portion, and a belt and a tread are piled on an outer peripheral side of the carcass band.

2. The method according to claim 1, wherein in the setting of the bead core to the inside of the wrap portion, a pair of bead cores each supported by a bead setter are moved to given positions in an axial direction between both wrap portions of the carcass band, and the wrap portion is subjected to an elastically enlarging deformation by moving the bead setter outward in the axial direction and subsequently the bead setter is retracted outward in a radial direction.

3. The method according to claim 1 or 2, wherein the stiffener previously attached to the bead core is fallen down at a position corresponding to a notch formed in the stiffener.

4. The method according to claim 2, wherein the stiffener is rendered into a fall-down posture after the bead core is supported by the bead setter.

5. The method according to claim 2, wherein the stiffener is fallen down after the bead core is locked and before the bead setter is retracted outward in the radial direction.

6. The method according to claim 2, wherein the stiffener is fallen down before the bead core is supported by the bead setter.

7. The method according to claim 1 or 2, wherein the falling deformation of the stiffener is carried out under an attachment of a support tongue-shaped portion of the stiffener protruding from a rotating fulcrum of the stiffener toward a forward side in a falling direction onto a surface of the bead core.

8. The method according to claim 2, wherein the stiffener is stood up after the bead setter is retracted outward in the radial direction with the locking of the bead core and before the carcass band is subjected to a shaping.

9. The method according to claim 1 or 2, wherein the stiffener is stood up in an expansion deformation of an axially central portion of the carcass band through the shaping thereof after the bead core is locked.

10. The method according to claim 2, wherein when the bead core is set into an inside of the wrap portion, the bead core is locked at a state of elastically enlarge-deforming the wrap portion by the bead setter supported with the bead core and thereafter the bead setter is retracted outward in the radial direction.

11. The method according to claim 2, wherein the bead setter is moved inward in the radial direction prior to the enlarging deformation of the wrap portion.

12. The method according to claim 2, wherein when the bead core is set into an inside of the wrap portion, the wrap portion is subjected to an elastically enlarge-deformation at an enlarged deformation state of the carcass band by the bead setter supported with the bead core and thereafter the bead setter is retracted outward in the radial direction.

13. The method according to claim 1 or 2, wherein operations ranging from the setting of the bead core to the joining of the belt and the tread to the carcass band are carried out on one shaping drum.

14. The method according to claim 1 or 2, wherein after the setting of the bead core is completed, the carcass band is transferred to another shaping drum to conduct the joining of the belt and the tread to the carcass band.

15. The method according to claim 11, wherein the carcass band is transferred to another shaping drum together with the bead setter before the setting of the bead core is completed and thereafter the bead core is set to conduct the joining of the belt and the tread to the carcass band.